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Group Art Unit No.: 1814

1(Amended). An isolated polynucleotide comprising [a polynucleotide sequence selected from the group consisting of:

- A<sub>1</sub>
- (a)] a polynucleotide having at least a 70% identity to a polynucleotide encoding a polypeptide comprising amino acids 1 to 657 of SEQ ID NO:2. [;
  - (b) a polynucleotide which is complementary to the polynucleotide of (a); and
  - (c) a polynucleotide comprising at least 15 sequential bases of the polynucleotide of (a) or (b)].

7(Amended). An isolated polynucleotide comprising [a member selected from the group consisting of:

- A<sub>2</sub>
- (a)] a polynucleotide having at least a 70% identity to a polynucleotide encoding the same mature polypeptide expressed by the methionyl tRNA synthetase gene contained in NCIMB Deposit No. 40771. [;
  - (b) a polynucleotide complementary to the polynucleotide of (a); and
  - (c) a polynucleotide comprising at least 15 bases of the polynucleotide of (a) or (b).]

Sub B<sub>1</sub>  
Sub B<sub>2</sub>

26(Amended). A polynucleotide [consisting essentially of] comprising a DNA sequence [obtainable] obtained by screening an appropriate library containing the complete gene for a polynucleotide encoding the polypeptide sequence set forth in SEQ ID NO:1 under stringent hybridization conditions with a probe having the sequence of said polynucleotide sequence set forth in SEQ ID NO:1 or a fragment thereof; and isolating said DNA sequence.

Please add new claims 28-55 provided below. The new claims are directed to the invention in Group I and introduce no new matter.

Sub C<sub>2</sub>

28. An isolated polynucleotide comprising a polynucleotide having at least a 95% identity to a polynucleotide encoding a polypeptide comprising amino acids 1 to 657 of SEQ ID NO:2.

29. The polynucleotide of Claim 28 wherein the polynucleotide is DNA.

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30. The polynucleotide of Claim ~~28~~<sup>P</sup> wherein the polynucleotide is RNA.

Sub C3 31. An isolated polynucleotide comprising a polynucleotide having at least a 95% identity to a polynucleotide encoding the same mature polypeptide expressed by the methionyl tRNA synthetase gene contained in NCIMB Deposit No. 40771.

32. A vector comprising the DNA of Claim ~~29~~<sup>P</sup>.

Sub B2 33. A host cell comprising the vector of Claim ~~32~~.

34. A process for producing a polypeptide comprising: expressing from the host cell of Claim ~~33~~ a polypeptide encoded by said DNA.

35. A process for producing a cell which expresses a polypeptide comprising transforming or transfecting the cell with the vector of Claim ~~32~~<sup>P</sup> such that the cell expresses the polypeptide encoded by the DNA contained in the vector.

Sub C4 36. An isolated polynucleotide comprising a polynucleotide having at least a 97% identity to a polynucleotide encoding a polypeptide comprising amino acids 1 to 657 of SEQ ID NO:2.

37. The polynucleotide of Claim ~~36~~<sup>P</sup> wherein the polynucleotide is DNA.

38. The polynucleotide of Claim ~~36~~<sup>P</sup> wherein the polynucleotide is RNA.

Sub C5 39. An isolated polynucleotide comprising a polynucleotide having at least a 97% identity to a polynucleotide encoding the same mature polypeptide expressed by the methionyl tRNA synthetase gene contained in NCIMB Deposit No. 40771.

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40. A vector comprising the DNA of Claim 36.

41. A host cell comprising the vector of Claim 40.

42. A process for producing a polypeptide comprising: expressing from the host cell of Claim 41 a polypeptide encoded by said DNA.

43. A process for producing a cell which expresses a polypeptide comprising transforming or transfecting the cell with the vector of Claim 40 such that the cell expresses the polypeptide encoded by the DNA contained in the vector.

44. A process for producing a tRNA synthetase polypeptide or fragment, which fragment retains binding and/or catalytic activity, comprising culturing a host of claim 41 under conditions sufficient for the production of said polypeptide or fragment.

45. An isolated polynucleotide comprising a polynucleotide hybridizing under stringent conditions to a polynucleotide encoding a polypeptide comprising amino acids 1 to 657 of SEQ ID NO:2.

46. An isolated polynucleotide comprising a polynucleotide encoding a polypeptide comprising amino acids 1 to 657 of SEQ ID NO:2.

47. An isolated polynucleotide consisting of nucleotides 1 to 1974 set forth in SEQ ID NO:1.

48. The isolated polynucleotide of SEQ ID NO:1.

49. An isolated polynucleotide comprising a DNA sequence obtained by screening an appropriate library containing the complete gene encoding an amino acid sequence set forth in

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*Sub C6*  
SEQ ID NO:2 under stringent hybridization conditions with a probe having a polynucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:2 or a fragment thereof, which fragment retains binding and/or catalytic activity; and isolating said DNA sequence.

50. An isolated polynucleotide comprising nucleotides 1 to 1971 set forth in SEQ ID NO:1.

51. An isolated polynucleotide comprising nucleotides 1 to 1974 set forth in SEQ ID NO:1.

*Art Cont*  
52. An isolated polynucleotide consisting of nucleotides 1 to 1971 set forth in SEQ ID NO:1.

*Sub C7*  
53. An isolated polynucleotide comprising a RNA sequence obtained by screening an appropriate library containing the complete gene encoding an amino acid sequence set forth in SEQ ID NO:2 under stringent hybridization conditions with a probe having a polynucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:2 or a fragment thereof, which fragment retains binding and/or catalytic activity; and isolating said RNA sequence.

54. An isolated polynucleotide comprising a DNA sequence obtained by screening an appropriate library containing the complete gene encoding an amino acid sequence set forth in SEQ ID NO:2 under stringent hybridization conditions with a probe having a polynucleotide sequence set forth in SEQ ID NO:1 or a fragment thereof, which fragment is a 17-mer or longer.

*Sub B5*  
55. A polynucleotide which is complementary to a polynucleotide of claim 1, 2, 3, 4, 5, 6, 7, 8, 26, 28, 29, 30, 31, 32, 36, 37, 38, 39, 40, 45, 46, 48, 49, 50, 51, 52, 53 or 54.

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Support for the claims as amended may be found on pages 2-4, 10-19, and 33-39, and Figures 1 and 2 of the Application.